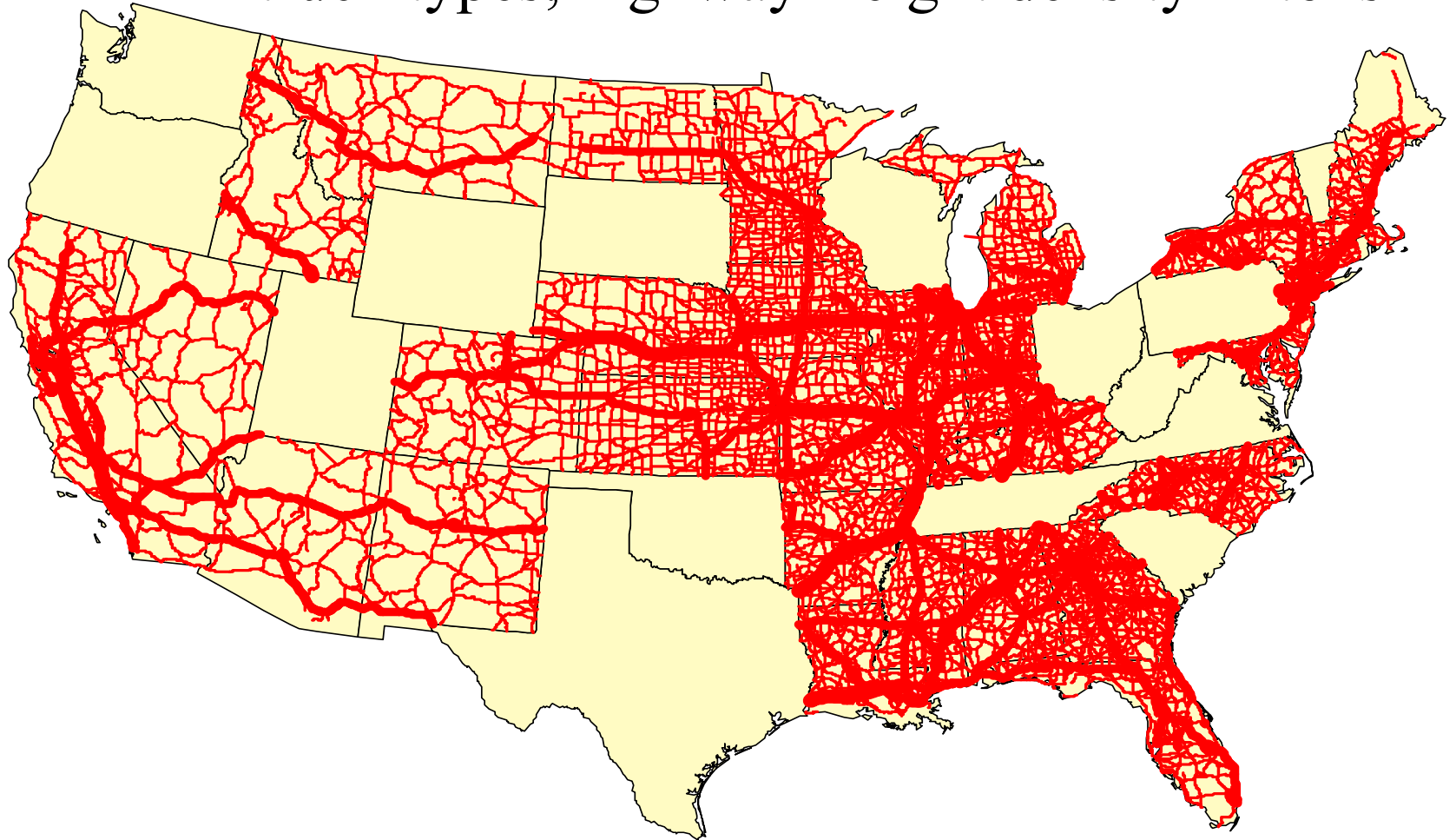
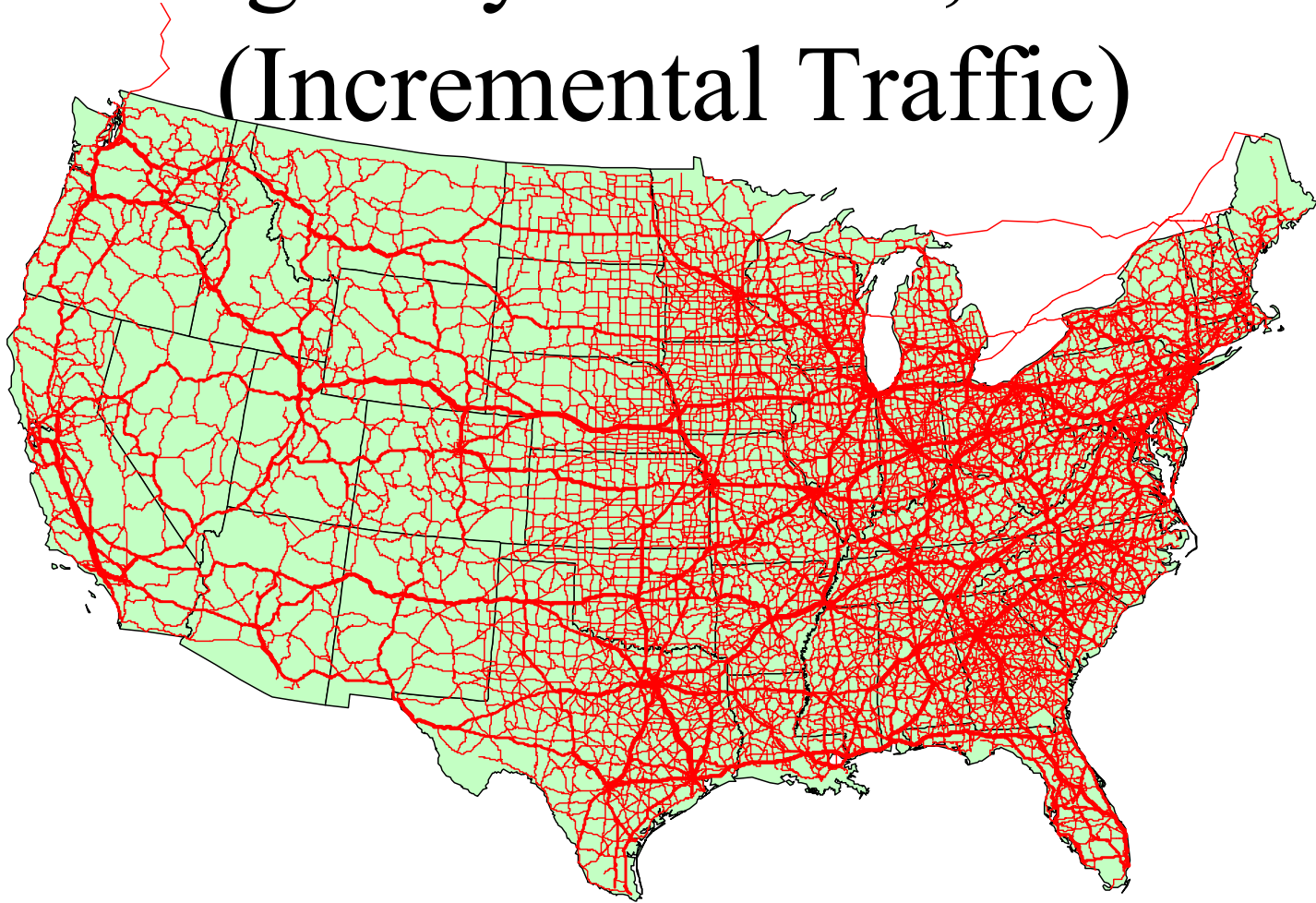


Truck Freight Flows, All Commodities

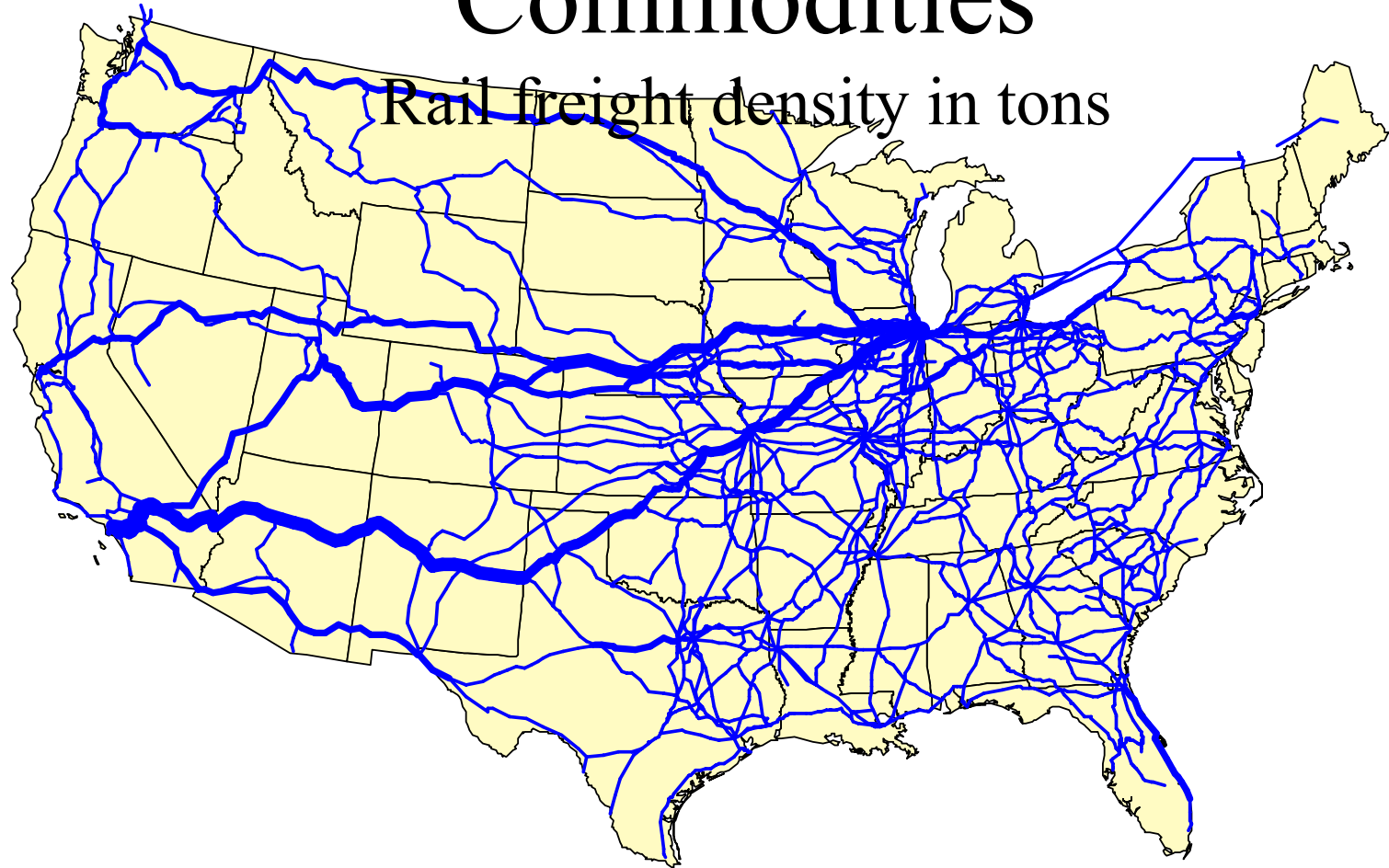
All truck types; highway freight density in tons



Truck Traffic Growth on Highway Network, 2020 (Incremental Traffic)



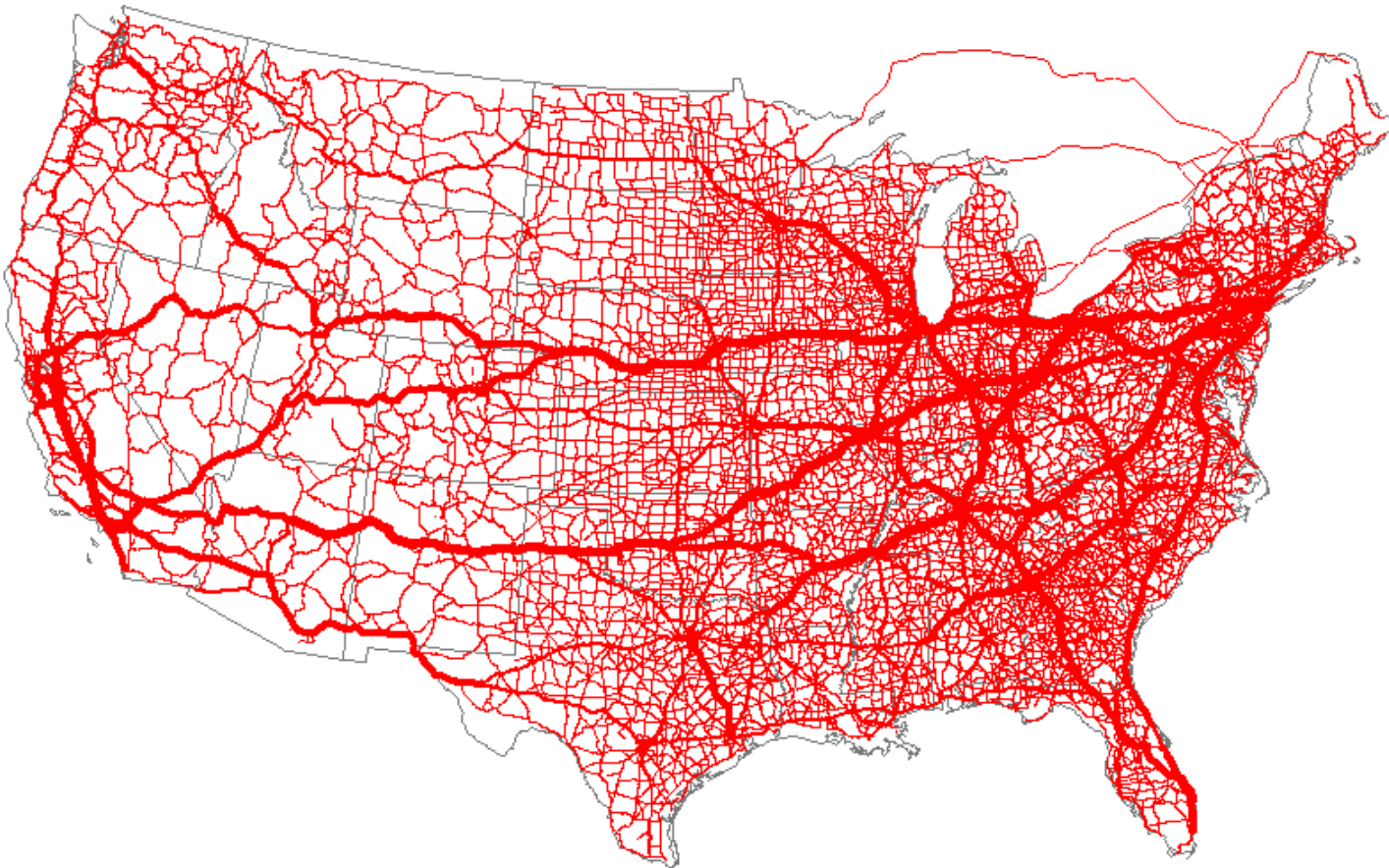
Rail Intermodal Flows, All Commodities



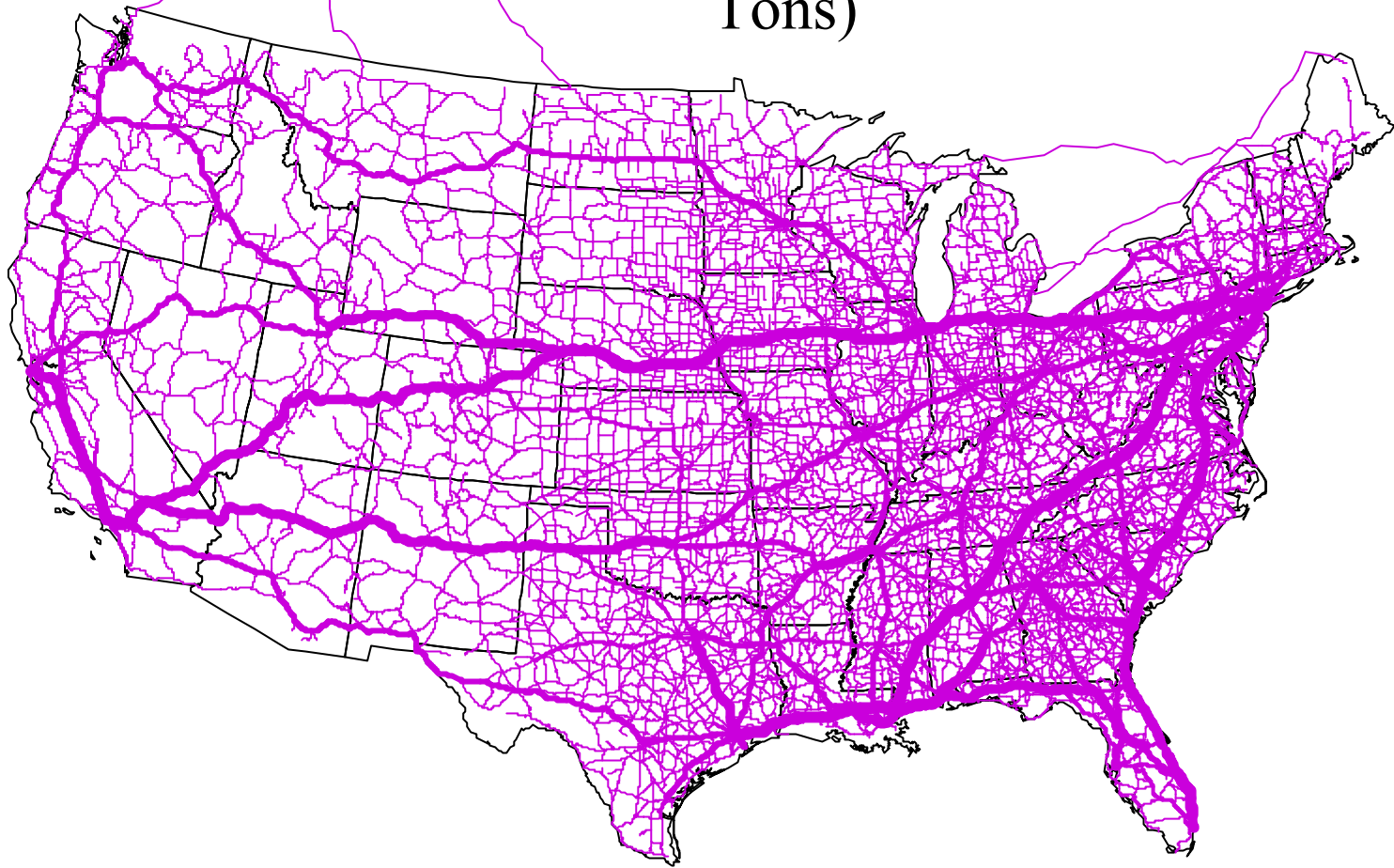
Truck Freight Flows, High-Service Commodities

High-value and time-sensitive products, highway

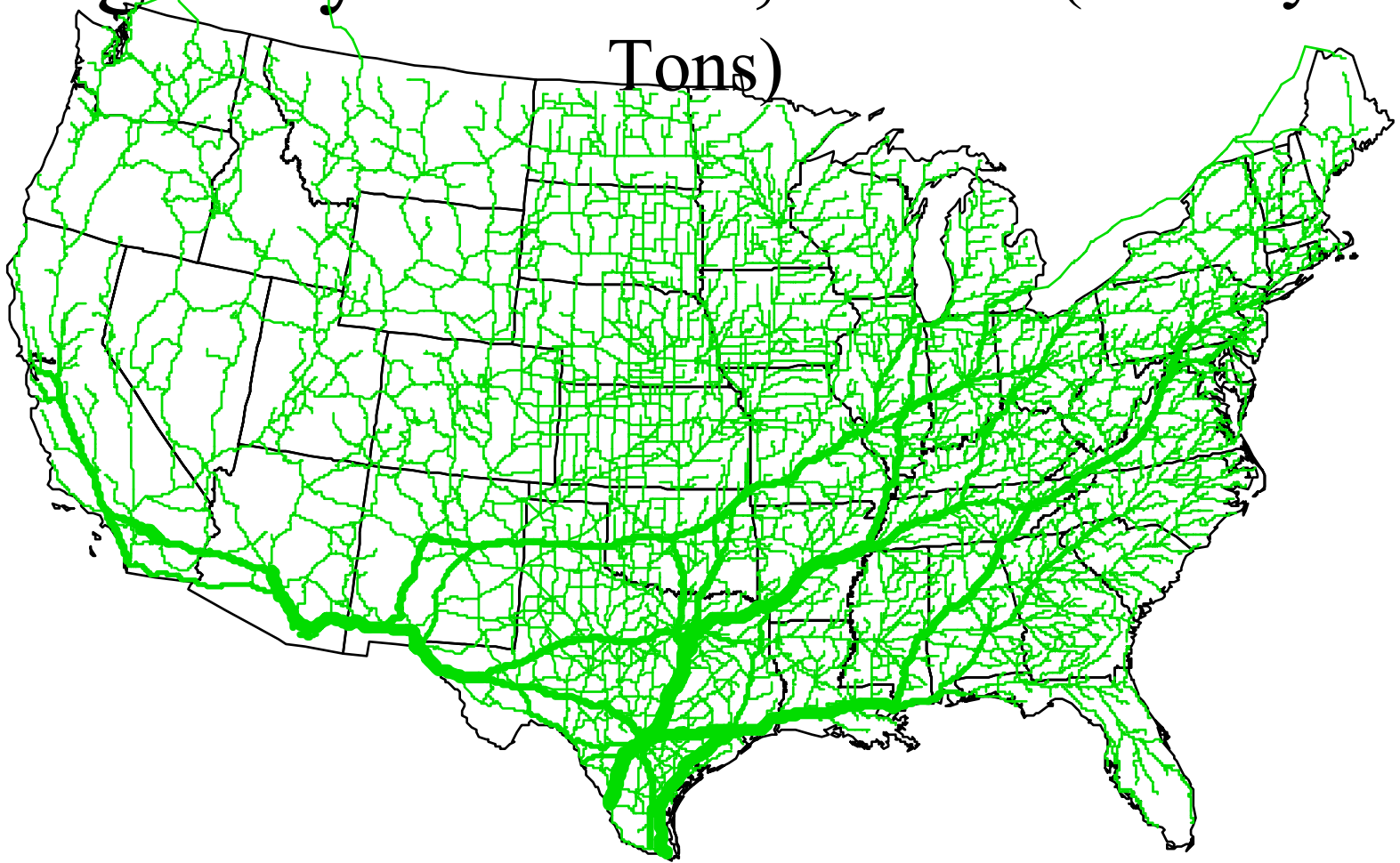
Source: Bureau of Economic Analysis

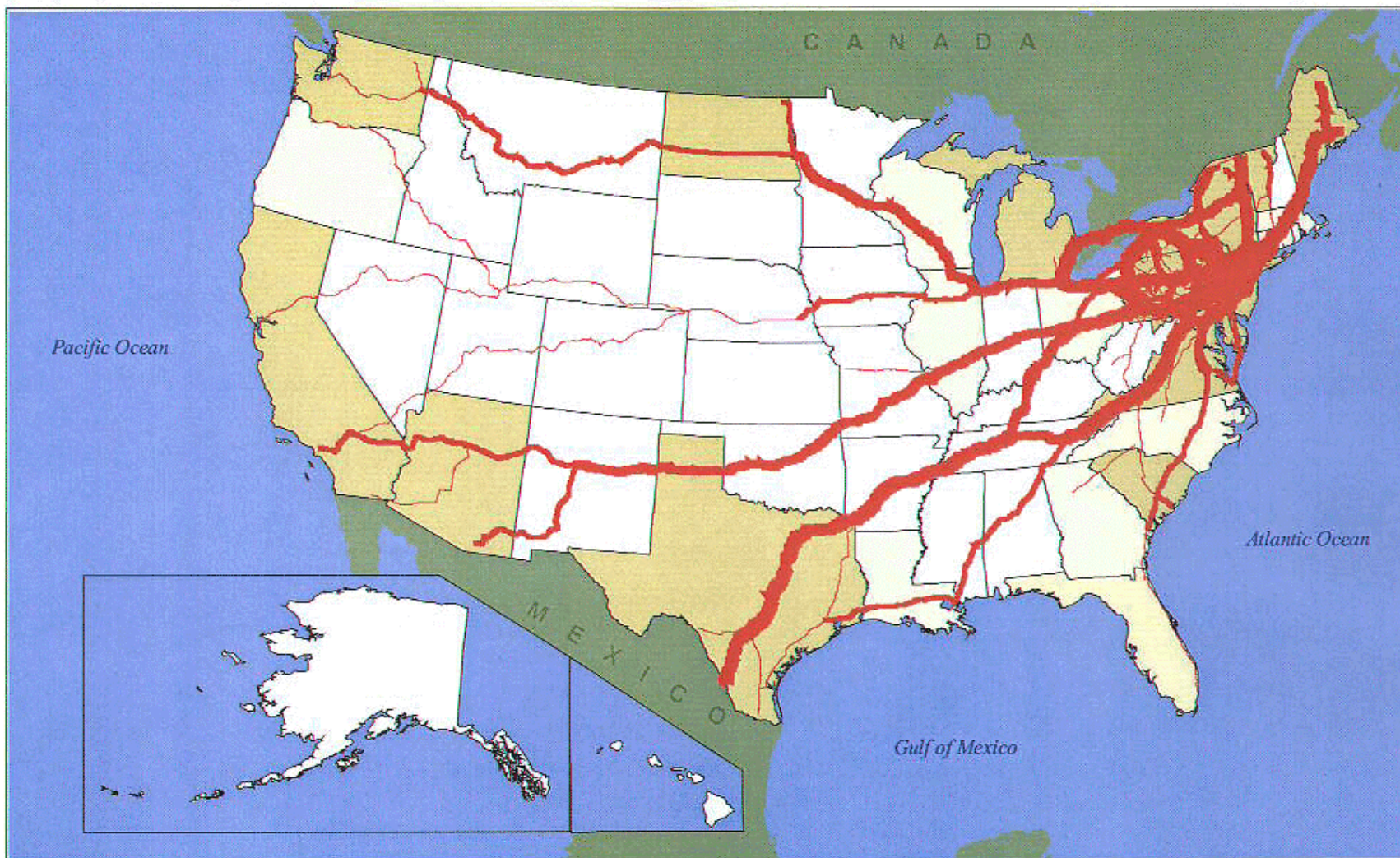


Overseas Inland Trade: Truck Traffic on U.S. Highway Network, 2020 (Density in Tons)



US/Mexico Truck Traffic on US Highway Network, 2020 (Density in Tons)





U.S. Department of Transportation
Federal Highway Administration
Office of Freight Management and Operations
Operations Core Business Unit

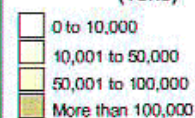
PENNSYLVANIA

Total International Truck Flows
(1998)

Network Flows (Tons)



State to State Flows (Tons)



Why Change

- Why
 - As freight doubles, highways can't.
 - We must use existing infrastructure smarter.
 - Ports and waterways sat out the opportunities of ISTEA/TEA-21.
 - Waterways have the capacity to be the solution, not the problem.
- MTS has already changed
 - MTS-IC
 - Streamlined interagency communication.
 - MTS-NAC provides
 - A channel of communication to administration
 - A forum to air differences of shippers, service providers, cities and counties
 - A tool to increase awareness/build coalitions.

Ports and waterways, instead of
being viewed as the problem,
need to be viewed as solution.

New opportunities: SEA-21 and/or the next TEA-21.

- Dedicate the \$2 billion Harbor Maintenance Tax and Inland Waterway User Fees surplus for the exclusive purposes for which they were collected.
 - HMT \$1.6 B surplus
 - IWTF \$400 M surplus
- Eliminate the 4.3 cents per gallon deficit reduction tax.
- Utilize existing highway gas tax revenues to
 - Allow **Port Intermodal Finance Infrastructure Authorities (PIFIAs)** to make highway related intermodal improvements
 - Based on truck trip miles generated
 - With awards made via total bottleneck analysis
 - Include intermodal connectors regardless if federal, state or local.

New opportunities: SEA-21 and/or the next TEA-21.

- A new dedicated maritime-intermodal trust fund for port and waterways
 - For Federal share of improvements and research
 - Funded via a percent of the \$22 B in current maritime user feed.
- Dedicate funding for domestic rail and waterway corridors that can mitigate congestion, reduce accidents, fuel consumption and pollution.

New opportunities: SEA-21 and/or the next TEA-21.

- Create a maritime CMAQ to reduce congestion of other modes
 - Include greenhouse gases
 - Calculate national benefits, not just for non-attainment areas.
- Base awards on agreed upon **quantifiable** “public benefits”
 - Increasing highway capacity
 - Reducing congestion, fuel consumption, accidents, pollution, etc.
- For **(PIFIAs)** to act and plan multi-jurisdictionally
 - To leverage dollars from
 - Borders and Corridors (B&C)
 - Intelligent Transportation Systems (ITS)
 - Congestion Mitigation Air Quality (CMAQ) funds
 - Leverage loan credits from
 - Marad Title XI
 - DOT RRIF

New opportunities: SEA-21 and/or the next TEA-21.

- Private sector tax
credits for companies
INVESTING

- in congestion
mitigating, gas saving,
pollution reducing and
accident reducing
equipment and
facilities.

- Private sector tax
credits for shippers
USING

- Congestion mitigating,
gas saving, pollution
reducing and accident
reducing modes of
transportation.

- Research needs

- Better understanding of the intermodal traffic bottlenecks that waterways could mitigate
- Determination of appropriate port “freight factors” to allocate gas tax money based on port share of freight miles generated
- Determination of acceptable, quantifiable “public benefits” that will result in conversion of traffic from high congestion corridors and high polluting modes to low congestion corridors and low polluting modes.

- Legislative Needs

- Realize that solutions to public problems (I.e. congestion mitigation), may require public as well as private investment.

- We need to change everything


Let the Port of Pittsburgh Work for You!

SmartBarge



**Port of Pittsburgh
Commission**

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Why Barge....

In today's business environment, strategic freight transportation is a key component to help businesses maintain their competitiveness. Barge transportation offers a low-cost shipping alternative that is rarely considered in today's "multi-modal" world of transportation. The Port of Pittsburgh Commission is dedicated to finding non-traditional shippers to diversify the traffic on the inland waterways.

This site is intended as a starting point for interested parties to explore the possibilities of containers and less-than-barge shipments to key destinations to and from Pittsburgh on the inland waterway. As we begin to apply the tools available in this age of electronic commerce, the Port of Pittsburgh encourages you to consider making barge transport a part of your transportation channel to meet your needs.



Transportation Industrial Development Port Information SmartBarge

Document: Done

To use the Cost Estimator Tool, first select the Origin City from the drop-down list.

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Cost Estimator Tool

Is barging right for you? Use this simple tool below to produce indicative comparative rates.

Origin City

Select Origin

Select Origin

Brownsville

Chicago

Houston

Louisville

Memphis

New Orleans

Pittsburgh

St. Louis

Destination City

Shipment Types

IF containers selected, enter number of containers

OR

Weight (In Tons)

SUBMIT

Don't see your origin destination pair? Click [here](#) to request information about the route or port that you are interested in learning more about.

Disclaimer/Explanation of Indicative Rates

The rates provided using this tool are indicative rates only and are not meant to be any type of guarantee of rates currently available from Barge operators. Some of the factors that may cause significant fluctuations from these rate structures include:

Billing Minimums

Then select the Destination City from the drop-down list.

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Cost Estimator Tool

Is barging right for you? Use this simple tool below to produce indicative comparative rates.

Origin City

Pittsburgh

Destination City

Select Destination

Brownsville

Chicago

Houston

Louisville

Memphis

New Orleans

Pittsburgh

St. Louis

Shipment Types

IF containers selected, enter number of containers

OR

Weight (In Tons)

SUBMIT

Don't see your origin destination pair? Click [here](#) to request information about the route or port that you are interested in learning more about.

Disclaimer/Explanation of Indicative Rates

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Billing Minimums

Then select the Shipment Type from the drop-down list.

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Cost Estimator Tool

Is barging right for you? Use this simple tool below to produce indicative comparative rates.

Origin City

Destination City

Shipment Types

Select Shipment Type

Select Shipment Type

20 ft Container

40 ft Container

Super Sack

IF containers selected, enter number of containers

OR

Weight (In Tons)

Don't see your origin destination pair? Click [here](#) to request information about the route or port that you are interested in learning more about.

Disclaimer/Explanation of Indicative Rates

The rates provided using this tool are indicative rates only and are not meant to be any type of guarantee of rates currently available from Barge operators. Some of the factors that may cause significant fluctuations from these rate structures include:

- Billing Minimums

Finally, enter the numbers of containers (or weight in tons) in the box.
Then click on the SUBMIT button.

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Cost Estimator Tool

Is barging right for you? Use this simple tool below to produce indicative comparative rates.

Origin City

Destination City

Shipment Types

IF containers selected, enter number of containers

OR

Weight (In Tons)

SUBMIT

Don't see your origin destination pair? Click [here](#) to request information about the route or port that you are interested in learning more about.

Disclaimer/Explanation of Indicative Rates

The rates provided using this tool are indicative rates only and are not meant to be any type of guarantee of rates currently available from Barge operators. Some of the factors that may cause significant fluctuations from these rate structures include:

- Billing Minimums

The resulting cost comparison is then displayed.

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Cost Estimator Tool Results

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Results: Point-to-Point Indicative Rates

The cost comparison results provided by this tool are origin to destination all inclusive rates.

Origin Selected: Pittsburgh

Destination Selected : Brownsville

Shipment Type Selected: 20 ft Container

Number of Containers: 45

	Barge	Rail*	Truck
<u>Total Days</u>	27	25	3
<u>Price per Container</u>	\$1,170.00	\$2,491.33	\$2,220.00
<u>Total Cost</u>	\$52,650.00	\$112,110.00	\$99,900.00

*Rail Rates based on 190,000 ton weight capacity.

Submit another Cost Comparison

Origin City

Select Origin

Destination City

Select Destination


Shipment Type

Select Shipment Type

Number of containers

Unregistered users can also request information using the RFI feature.

[Home](#) > [SmartBarge](#) > RFI

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Request for Information

Create a RFI by completing the following form regarding the item you wish to have shipped. A response will be provided within 48 hours.

* indicates required field

***Information Required**

*First Name

*Last Name

*Company

*Address1

Address2

*City

State

Zip

*E-Mail

*Phone

Fax

*Information needed by / /

*I prefer to be notified by: ☐ E-Mail | ☐ Fax | ☐ Phone

Unregistered users can also view postings of available barges.
Clicking the blue “Go” button provides additional details.

The screenshot shows the SmartBarge website interface. On the left, the main navigation bar includes 'Home' and 'About' links. Below this is a 'LOGIN' section with fields for 'User ID' and 'Password', a 'GO' button, and links for 'Register' and 'Forgot password'. Further down are links for 'Cost Estimator Tool', 'Request for Quote', 'Request for Information', 'Barge Availabilities', 'Privacy', and 'Terms of use'. The central part of the page displays a barge listing with the title 'Barge Details'. The listing includes the following information: Origin: Pittsburgh, Destination: Brownsville, Expected Departure Date: 6/12/01, Expected Arrival Date: 6/20/01, Quantity Accepted: 200, Type Accepted: 20 ft Container, Barge Type: Covered, Stops: No, Accepted Stop List: St Louis, Contact: Port Pittsburgh, Company Name: PPC, Phone: 412-201-7330, Fax: 412-201-7337, Contact Preference: By Phone, and a 'Send Email' button labeled 'SUBMIT'. On the right side of the page, there is a 'SmartBarge' logo and a 'Stops' section with a 'GO' button. A mouse cursor is pointing at the 'GO' button in the 'Stops' section.

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Is barging in

Barge Availabilities

Origin

Pittsburgh

Barge Details

Origin Pittsburgh

Destination Brownsville

Expected Departure Date 6/12/01

Expected Arrival Date 6/20/01

Quantity Accepted 200

Type Accepted 20 ft Container

Barge Type Covered

Stops No

Accepted Stop List St Louis

Contact Port Pittsburgh

Company Name PPC

Phone 412-201-7330

Fax 412-201-7337

Contact Preference By Phone

Send Email **SUBMIT**

Stops

Container No **GO**

Upon registering, you will indicate your company type.

Cost Estimator Tool
Compare barge prices with truck and rail prices.

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Barge Availabilities
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***Last Name**

Title

***Company name**

***User name**

***Password**

***Confirm Password**

***Address1**

Address2

Address3

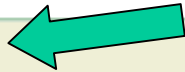
***City**

State **Zip** ***Country**

Phone

Fax

***eMail**

Company type 

Facility type

☐ In registration, I accept the [Terms of Use](#)

Internet

To log in, enter your User ID and Password, then click the “Go” button.

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Why Barge....

In today's business environment freight transportation is a key to help businesses maintain competitiveness. Barge transportation is rarely considered in today's "modal" world of transportation of Pittsburgh Commission is finding non-traditional shipping the traffic on the inland waterway.

This site is intended as a state of containers and less-than-truckload on the inland waterway. As part of your transportation

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Check when barges are available. See the bulletin

Welcome michael!





Why Barge....

In today's business environment freight transportation is a key to help businesses maintain competitiveness. Barge transportation is rarely considered in today's "modal" world of transportation of Pittsburgh Commission is finding non-traditional shipping the traffic on the inland waterway.

This site is intended as a state of containers and less-than-truckload on the inland waterway. As part of your transportation c

Once registered, regardless of company type, you can use the Request for Quote feature.

ge



TransportationIndustrial DevelopmentPort InformationSmartBarge

Step 1: Request for Quote

Create a RFQ by completing the following form regarding the item you wish to have. A response will be provided within 48 hours.

*indicates required field

Description

*Origin

Pittsburgh

*Destination

Brownsville

*Commodity

steel rods

*Type

☐ Bulk
☒ 20' Container
☐ 40' Container
☐ Super Sack

Number of containers:

18

*Weight

Select

Barge Type needed:

☒ OPEN ☐ COVERED

Frequency

☒ One Time Trip

Ship Date /

Month

 /

2001

Desired Arrival Date /

Month

 /

2001

☐ Periodic Shipments

From /

Month

 /

2001

To /

Month

 /

2001

Monthly ☐
Weekly ☐
Daily ☐

* My preference is :

☐ Lowest Cost | ☐ Fastest Time | ☐ None

Delivery Restrictions

UNANSWERED

Additional Information

UNANSWERED

SUBMIT

Only those users registered as Barge Operators can post listings to the Barge Availabilities bulletin board.

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User ID

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Request for Information
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Barge Availabilities
Check when barges are available. See the bulletin board.

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Post a barge availability:

New Barge Availability

* **Origin**

* **Destination**

* **Departure Date**
note: departure date must be at least 3 days from today to show in bulletin board

* **Arrival Date**

* **Quantity Accepted**

* **Type Accepted**

* **Hopper Type**

* **Stopover?**

Accepted Stops

* **First Name**

* **Last Name**

* **Company Name**

* **Phone**

* **Fax**

* **E-Mail**

* **I prefer to be notified by:** ☐ Phone | ☐ Fax | ☒ E-Mail

The SmartBarge site and the Port of Pittsburgh site share a common navigation panel to make it easy to move from one site to the other.

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Why Barge....

In today's business environment, strategic



Address <http://www.port.pittsburgh.pa.us/index.html>



PORT OF PITTSBURGH

At the top of the inland waterway system,
there's a port like no other. It gets primary

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Finally, there are links to the site's *Privacy Policy* and *Terms of Use*.

binding arbitration in accordance with the commercial arbitration rules of the American Arbitration Association. Any such controversy or claim shall be arbitrated on an individual basis, and shall not be consolidated in any arbitration with any claim or controversy of any other party. The arbitration shall be conducted in Pittsburgh, Pennsylvania, and judgment on the arbitration award may be entered in any court in Pittsburgh, Pennsylvania, having jurisdiction thereof. Either you or Smartbarge.com may seek any interim or preliminary relief from a court of competent jurisdiction in Pittsburgh, Pennsylvania necessary to protect the rights or property of you or Smartbarge.com pending the completion of arbitration.

COST ESTIMATOR TOOL

Explanation/Disclaimer

The rates provided through this tool are sample rates intended to be indicative of rates generally available in the market. They are provided for informational and comparison purposes only. Smartbarge.com and the Port of Pittsburgh Commission do guarantee that these rates are currently available to you. While efforts are made to ensure that the provided rates are fair representations of currently available rates, many factors affect actual available rates such as billing minimums, seasonal demands and availability. Definitive rates can be obtained only by contacting transportation companies. The estimated barge costs include projected terminal fees and loading and unloading costs. Transportation to and from the terminals are not included in these rates.

REQUEST FOR QUOTE

Explanation/Disclaimer

Smartbarge.com will respond to your Request for Quote by phone at its earliest opportunity during normal business hours. No guarantees are made concerning timeliness of the response. Upon receipt of your Request for Quote, Smartbarge.com will calculate what it determines to be the most logical and efficient method of transporting your shipment by barge based upon a number of factors including information provided to it by terminals and barge companies. It will advise you of these conclusions by phone. All such quotes are provided for informational purposes only. Smartbarge.com and the Port of Pittsburgh Commission do not guarantee that the quote provided by Smartbarge.com is the best possible alternative for you or even a suitable alternative. You should analyze all information provided in accordance with your individual needs. Smartbarge.com and the Port of Pittsburgh Commission do not guarantee the availability of the quoted rates, and they are not acting as brokers or contractors for any terminals or barge lines. You must contract directly with terminals and barge lines for all transportation services.

BARGE AVAILABILITY

Explanation/Disclaimer

Barge Availability information is provided directly by participating barge lines. Smartbarge.com and the Port of Pittsburgh Commission are not responsible for the content or reliability of the information provided. All questions regarding this information will be directed to the participating barge lines.

REQUEST FOR INFORMATION

Explanation/Disclaimer

Smartbarge.com will respond to your Request for Information by phone at its earliest opportunity during normal business hours. No guarantees are made concerning the timeliness of the response. All responses will be based on information provided to Smartbarge.com by third party sources. Smartbarge.com and the Port of Pittsburgh Commission do not guarantee the reliability of the information provided by those sources.

SMARTBARGE.COM

SmartBarge.com was developed for the Port of Pittsburgh Commission by Carnegie Mellon University's Institute for eCommerce through their Practicum sponsorship program.



SmartBarge.com was financed in part through a grant from the United States Department of Transportation/ Federal Highway Administration, MARAD, the Port of Pittsburgh Commission, and the PA Department of Community and Economic Development.

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PPC Technology Project

- Goal
 - Improve waterway transportations' contribution to regional economic development through technological innovation.
- Objectives
 - Improve waterway transportation performance by 1 MPH (a 25% improvement)

Rationale

1. Located at the end of the waterway system, Pittsburgh gains the most by system improvements and we have to work the hardest.
2. PPC has significant technological, industrial and government expertise interested.
3. PPC has already been awarded grants to study technology improvements to the system.

Projects Identified 1-2

1. Advanced Navigation Systems

- Enhanced fog vision
- Display panel integration
 - GPS/3-D Radar
 - Infra-red sensors
- Predictive Steering
- Real time depth information
- Portable tow thrusters

2. Automated Lockages

- Automated communications between tow and lock operator
- Automated guidance to enter lock
- Video and remote lock controls
- Sensors to control lock operations
- Security cameras, etc.

Earn Allegheny designation as “Demonstration River”

Federal preventive maintenance money is being cut off.

\$10-15 million in major rehab for hydraulics and electronics is due

Automation is estimated at another \$10 million.

Would require a congressional add-on.

Projects Identified 3-5

3. Towboat air quality emission monitoring

- Monitoring towboat engine performance
- Define possible air quality credits
- Qualify credits for next TEA-21

4. Monitor towboat pilot fatigue.

- Modify, install and test Perclose type cameras on towboats.

5. Traditional barge operations

- Measuring loads
- Securing barges from breakaways
- Lashing barges together
- Identifying barges
- Cleaning barges

Projects Identified 6-8

- Container on Barge

- 6. Waterside requirements

- Retrofitting
 - Barge racks/pump-outs
 - Towboat elevated decks
 - New COB designs
 - Towboats
 - Barges

- 7. Terminal requirements

- Chassis, crane and yard equipment and yard carrying capacity

- Container on Barge

- 8. Business strategies

- Analyzing markets
 - New data sources
 - New display technologies
 - Understanding the container mentality in a bulk environment
 - Legal and contractual arrangements
 - Communications and tracking strategies

Where do we go from here?

- Need to design a research and technology program for the inland waterway system.